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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/955,507	09/18/2001	Donna J. Crowther	1999U033.US	1465

7590 04/04/2002
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EXAMINER

RABAGO, ROBERTO

ART UNIT	PAPER NUMBER
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1713

DATE MAILED: 04/04/2002

4

Please find below and/or attached an Office communication concerning this application or proceeding.

T-P-4

Office Action Summary

Application No.

09/955,507

Applicant(s)

CROWTHER ET AL.

Examiner

Rob Rábago

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-- The MAILING DATE of this communication appears on the cover sheet with the corresponding address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-39 is/are pending in the application.
- 4a) Of the above claim(s) 14-39 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☒ Claim(s) 13 is/are objected to.
- 8) ☒ Claim(s) 1-39 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-13, drawn to catalysts, classified in class 502, subclass 117.
 - II. Claims 14-33, drawn to polymerization methods, classified in class 526, subclass 166.
 - III. Claims 34-39, drawn to polymers, classified in class 526, subclass 348.

The inventions are distinct, each from the other because of the following reasons:

Inventions I and II are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case, the product is useful in hydrogenation reactions.

Inventions II and III are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case, the method could be used to make polymers which do not have the specified properties, and the specified polymers could be made using different catalysts.

Inventions I and III are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the different inventions comprise a catalyst and a polymer. While it is acknowledged that they are "related" in that the claimed catalyst may be useful in a process of making the claimed polymer, these two inventions meet the criteria for being unrelated because they share no common structural features, have no common uses, and have totally different physical properties and chemical reactivity.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

During a telephone conversation with Ms. Lisa Jones on 3/22/2002 a provisional election was made with traverse to prosecute the invention of group I, claims 1-13. Affirmation of this election must be made by applicant in replying to this Office action. Claims 14-39 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Specification

2. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Information Disclosure Statement

3. The information disclosure statement filed 9/18/2001 fails to comply with 37 CFR 1.98(a)(3) because it does not include a concise explanation of the relevance, as it is presently understood by the individual designated in 37 CFR 1.56(c) most knowledgeable about the content of the information, of each patent listed that is not in the English language. It has been placed in the application file, but the lined-through citations have not been considered.

Claim Objections

4. Claim 4 is objected to because the word "each of" (or some similar phrasing) should precede "L^A and L^B" in line 4 for proper singular/plural subject/verb agreement.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 1-9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

No clear definition has been set forth for the scope of the terms "bulky ligand", "metallocene-type" and "cyclopentadienyl-type". Regarding "bulky ligand", nothing beyond exemplary species has been described in the specification. Regarding "cyclopentadienyl" and "metallocene", the art generally recognizes these as meaning an aromatic C₅ cyclic ligand and a transition metal complex including at least one η -5 bound cyclopentadienyl ligand, respectively. However, the description in the specification at paragraphs 011 through 013 indicates that the intended scope is substantially larger than that which the ordinary skilled worker would infer from the claims. The scope of the broadened meanings of these terms has not been defined, and therefore the claims are indefinite.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 1, 2, 4, 5 and 7 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Chen et al. (Organometallics 1994).

The reference discloses in the structure on page 748 a species within the claimed scope, and discusses catalytic activation of same and propylene polymerization therewith at page 749, col. 1, third full paragraph.

9. Claims 1, 2, 4, 5 and 7-12 are rejected under 35 U.S.C. 102(b) as being anticipated by Langhauser et al. (US 5,491,205).

The claims are anticipated by patented claim 1, which describes catalysts including a bridge comprising a cyclic ring system. The only selection required to meet the claims is that of germanium at position Z, and a selection from one in four is anticipatory within the meaning of 35 USC 102.

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 1-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Winter et al. (US 5,532,396).

Examples 26 and 28 disclose a germanium-bridged catalyst including all claimed limitations except for the requirement that the bridge be cyclic and that the catalyst be supported. Although unexemplified, patentee discloses cyclic bridges at col. 3, lines 56-

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63, and supports at col. 11, lines 45-53. One of ordinary skill in the art would be motivated to use the disclosed alternative embodiments because patentee has suggested their use as catalyst components for the polymerization of olefins, with reasonable success expected. The comparative data of record is not sufficient to establish unexpected results because applicants' examples have not made a comparison with the closest prior art (i.e., the examples of Winter).

12. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Langhauser et al. (US 5,491,205).

The parent claim is discussed with respect to this reference above. Although not recited in the examples or the claims, the use of a support is suggested at col. 6, lines 1-9. One of ordinary skill in the art would be motivated to use a support because patentee has suggested its use as a catalyst component for the polymerization of olefins, with reasonable success expected.

Allowable Subject Matter

13. Claim 13 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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Conclusion

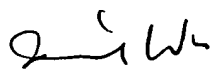
14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rob Rábago whose telephone number is (703) 308-4347. The examiner can normally be reached from 6:30 am - 3:00 pm Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached on (703) 308-2450. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

Rob Rábago
Examiner
Art Unit 1713

RR 
April 1, 2002


DAVID W. WU
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700